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THIS PAPER PRESENTED RESULTS FROM AN EXPLORATORY STUDY OF DIFFERENTIATION IN WHICH ADOLESCENTS WERE GIVEN THE TYPICAL DAY INTERVIEW. THE FOCUS OF THE INSTRUMENT WAS ON THE STUDENT'S ABILITY TO COGNITIVELY DIFFERENTIATE ASPECTS OF THE SCHOOL ENVIRONMENT. DIFFERENTIATION WAS DEFINED AS CAPACITY TO PERCEIVE NUANCES OF PROBLEMS, PEOPLE, AND PROGRAMS WHICH COMPOSE ONE'S ENVIRONMENT. EACH OF 30 STUDENTS FROM A PRIVATE SECONDARY SCHOOL WROTE A LOG OF OCCURRENCES FROM RISING UNTIL RETIRING, AND EACH WAS INTERVIEWED FOR ELABORATION. THE DIMENSIONS ON WHICH THE TYPICAL DAY INTERVIEW WAS EVALUATED AND SOME TYPICAL RESPONSES WERE GIVEN. STUDENTS WERE RATED ON ABILITY TO DIFFERENTIATE SCHOOL, PERCEPTION OF TEACHERS, PERCEPTION OF CLASSES, AND INDEPENDENT INITIATIVE. ACTIVITY LEVEL, USE OF FREE TIME, AND RELATIONS WITH PEERS WERE ASSESSED. ROLE OF THE PARENTS IN THE ADOLESCENT'S DAY AND THE ROLE OF THE GYM WERE ALSO RATED. INTELLECTUAL ABILITY BASED ON TESTS AND ACHIEVEMENT BASED ON GRADES WERE TABULATED. THE STATISTICAL STUDY INCLUDED RELIABILITY FINDINGS, COMPARISONS OF BOYS AND GIRLS, COMPARISONS OF TWO ABILITY TRACKS, AND COMPARISONS OF GRADES 7, 9, AND 11. FINDINGS SHOWED DIFFERENTIATION CORRELATING HIGHLY WITH ORGANIZATIONAL ABILITY AND INDIVIDUAL INITIATIVE, AND MODERATELY WITH GRADES AND INTELLECTUAL ABILITY. NO RELATIONSHIPS WERE FOUND BETWEEN DIFFERENTIATION AND ACTIVITY LEVEL, PEER RELATIONS, ROLE OF THE GYM, INCREASES IN AGE AND MATURITY, SEX DIFFERENCES, OR USE OF FREE TIME. FURTHER STUDY WITH STUDENTS FROM URBAN AND SUBURBAN SCHOOLS AND OF WIDER ABILITY RANGES WAS RECOMMENDED. (TC)

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AN EXPLORATORY STUDY OF SECONDARY SCHOOL STUDENTS USING THE TYPICAL DAY INTERVIEW

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The purpose of this paper is to present the results from an exploratory study of differantiation with secondary school students utilizing the Typical Day Interview as a major instrument for study.

The Typical Day Interview focuses on the ability of a student to cognitively differentiate different aspects of his school environment. This ability has been related to a number of factors such as organizational ability, independent initiative, activity level, relations with peers, inner-directedness, the role of the parents in school work and daily life, academic achievement, and intellectual ability.

Differentiation is the capacity of an individual to perceive the subtleties and nuances of programs, problems, or people which are part of one's living environment. Human behavior and life in an educational institution are complex; therefore, differentiation is important to living and working adaptively, as one cannot cope with or develop mastery of a complex situation or environment unless he can perceive that complexity.

The concept of differentiation has received considerable attention in the literature. Werner (5) pioneered in relating it to developmental psychology. More recently, Bieri (1) and Kelly (4) reported work on the degree of differentiation an individual possesses in his perception of others. In a related study, Bieri (2) used the construct of cognitive complexity to reflect a person's "ability to differentiate among behavioral dimensions in the social environment". (pg. 2)

Differentiation has been systematically related to a wide range of variables. Brooks and Phillips (3), for example, explored its

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relationship to developmental scores, flexibility, and rigidity. It has not been studied, however, in specific relation to adolescents in educational settings.

I. Sample Selection

The intensive nature of The Typical Day Interview made a small sample a practical necessity. Thirty students were selected from the population of four hundred and eighty students of an independent secondary school in the midwest.

For an exploratory study such as this, it seemed desirable to sample as wide a range of students as possible, consistent with having sufficient students in the rating categories to make analysis of the results meaningful. It was decided, therefore, to take ten students from each of grades seven, nine and eleven. It seemed desirable to study the ability to differentiate between track=levels across each grade. In the school there were three tracks, Track A, Track B, and Track C. Track A is composed of the best students in terms of past performance; Track C of the poorest students. Track A and Track C were selected to illuminate differences if any were found to exist. The populations of Track 7A, 7C, 9A, 9C, 11A, and 11C were identified, and five students randomly selected from each group with the added stipulation that sex distribution within grades be equal. For across-track comparisons, there would be fifteen A's and fifteen C's.

II. Description of the Typical Day Interview

The Typical Day Interview first ascertains how a student spends his time from arising in the morning until bedtime at night. The student is given an interview format blocking out periods of time corresponding to the interval before classes start in the morning,

each class period during the day, the time immediately after school, and the evening until bedtime. He is instructed to write a log of his activities within this framework.

During the Typical Day Interview itself, lasting anywhere from 45 minutes to 90 minutes, the student is asked to elaborate and expand upon his originally constructed log. He is asked to articulate to the extent of his ability the purposes of his teachers and the school, the nature of the school work, the qualities of his friends, and his relationship with his parents.

The interviewer attempts to have the student differentiate these aspects of his total life space. The method of analysis is designed to reflect the degree to which the student could achieve differentiation in each of the above mentioned areas.

All Typical Day Interviews are recorded mechanically for later transcription.

III. Evaluating the Typical Day Interview

Evaluation of the Typical Day Interview was in terms of a number of dimensions related to the home and school environment: ability to differentiate school, teachers, and classes; independent initiative; activity level; use of free time; role of parents; relations with peers; importance of gym and intellectual ability and achievement.

Evaluations of the Typical Day Interviews of the thirty students in the sample were made by the junior author after listening to the tapes. The tapes of five of the thirty students in the sample were rated by two advanced graduate students in education in addition to the junior author as a check of interscorer reliability. The results of this reliability check are presented in Table 1 in the Results section.

The following is a description of the dimensions on which the Typical Day Interviews were evaluated.

Ability to Differentiate School

The first rating is a summary rating of the student's ability to differentiate aspects of school. His perception of school is rated on a continuum from undifferentiated (1) to differentiated (5). A response scored as undifferentiated (1) is as follows:

> School is very important to me. The main reason I think I am in school is education. Nowadays one must have an education to get along with today's pressures. School provides valuable experiences for people.

The following response was scored as differentiated (5):

> School is important both as a center of learning and for making friends. I need some discipline in my learning and so school is important because it provides assignments and an orderly method of attaining my goals. I enjoy doing term papers and things like that. I don't think I could get into them on my own. Also I enjoy the extracurricular activities at school--the clubs and sports.

Perception of Teachers

Perception of teacher requires the rater to judge the degree of differentiation the student has of his teachers. Rating categories are from undifferentiated (1) to differentiated (5). A response scored as undifferentiated (1) is as follows:

> My third period class is with Mrs. L who teaches math. We talked about modern math and then corrected last nights papers...Then I have French with Mrs. G. We repeat what she says after she says it. Then we learn new material... In English we work on compositions and grammar. Miss F will tell us new points..My teachers in sculpture are nice because they let you fool around.

The following response was scored as differentiated (5):

> Seventh period I have chemistry and to me this is a challenging course. It's interesting because, well, it's pretty difficult. I like the teacher's approach.

> The teacher emphasizes the need for a probing, individual mind which is necessary for anyone to be educated or to educate themselves...Math class I enjoy, partly because I do well in it and partly because the teacher is amusing, not strict...I like the freedom of expression our teachers allow in Art. It's a relaxed atmosphere but condusive to work.

Perception of Classes

Perception of classes changes the focus of analysis from the teacher as a person to the content of the course. Ratings from undifferentiated (1) to differentiated (5) are made on the basis of how well the student was able to evaluate the differences between his different classes.

A response scored as undifferentiated (1) is as follows:

> Social Studies is all right but I don't particularly care for it...Math is okay when I understand what the teacher's talking about. Science is really an interesting subject...English is great.

The following response was scored as differentiated (5):

> English--this class varies between very interesting and very boring; usually we discuss a book, and often we go too much by the text. A little variety would help this class. History--these lectures have been rather boring; they wouldn't be so bad if you didn't have to hurry to copy down so many notes that we're held for on the tests. This class consists of merely sitting in a chair and taking notes; there is no discussion...Spanish is the most interesting class of the day. Mrs. M manages to keep you on your toes witho t being too regimented about it.

Independent Initiative

Independent initiative was a category which ranged from reliance on oneself for undertaking activities or projects to being wholly dependent upon others for initiative. For the purposes of this study, the range was wholly dependent (1) to highly independent (5). The essence of a student evaluated as wholly dependent (1) is provided by the following excerpt:

> My mom wakes me up about 6:45, but I never feel like getting up. Every day it's the same thing...I get home from school about 5:00. From then til six I sit around, watch TV maybe. I just don't want to do my homework yet I can't find anything I want to do, so I sit around until Mom calls me for dinner.

The student who made the following response was rated as highly independent (5):

> I get up about 5:45. From then to 6:30 I do some outside reading. It's hard to get up then so I take a shower and I'm wide awake. Then from 6:30 to 7:00 we feed birds in the yard. That's a hobby I started four years ago...I made a bird feeder down in the shop... I'm trying to work out a good lighting system for our fall dance. We thought we had fixed it last year by putting them on the basketball baskets, but the crepe paper below them cast shadows. We're going to have to work that out.

Activity Level

In order to ascertain whether or not a relationship existed between activity level and the capacity to differentiate, ratings were made along four activity dimensions. In terms of activity level at school, each student was rated on a scale ranging from few activities (1) to numerous activities (5) and on an activity orientation scale from passive (1) to active (5).

Few activities (1) was inferred from statements such as:

> This period is the bright spot of my day. I love to work for the yearbook and hope to be editor next year. I spend most of my free time thinking about working on the yearbook.

A rating of numerous activities (5) was based on student statements such as:

> I like to make my own clothes in Home Econ omics. I finished a shirt and then started working on the costumes for the fall play.... I enjoy Glee Club especially when we work on Christmas songs and also when the Spring Operatta comes.... This fall I was on the varsity hockey team and really loved it. I loved playing other schools.

Passivity (1) was inferred from such student statements as:

> I don't usually have the time to take part in extra school activities. I don't care for sports that much and the clubs--well, I don't have the interest I guess. I try to get my homework done then.

An active orientation to activities (5) was inferred from excerpts like the following:

> I had a lot of fun finishing a project for the football dance... I'm doing extra work in chemistry fixing radios....I can't play football this year because of a neck injury, so I'm the manager. I like the idea, the responsibility of being manager.

Use of Free Time

Use of free time was evaluated on two dimensions; disorganized (1) to organized (5), and rigid (1) to flexible (5). The disorganized-organized rating was made on the basis of whether or not the student seemed systematic in organizing his time.

A student was rated as disorganized (1) if he made statements such as:

> I watch TV and try to decide what homework to do first. Sometimes I'm not sure of the assignments and I wait until study hall the next day. Sometimes I have trouble studying in the study halls too. I guess I get distracted easily.

In contrast, the following student was rated as organized (5):

> Then I do my homework. I usually start with Math because that's the hardest and work my way down to English which usually consists of some sort of reading. If there is a composition due the next day, however, I do that right after the Math.

The rigid-flexible rating, therefore, became an evaluation of the quality of the process of organizing. Some students were so tightly organized as to be rigid; for others, organization led to effective action because it was flexible. A rating of rigid (1) was given to the following student:

> I always water my plants in the morning. I feel it's the most important thing that time of day. I go downstairs

> and practice the violin which I don't like thinking about, but don't mind doing. After school I respond to the call of duty and practice some more. There is never enough time to do things. I barely have time to care for my plants... At bedtime I always have my clock wound. It's very important.

The student from whose Typical Day Interview the following statements were taken was rated as flexible (5):

> Second period I have a study hall and yesterday second period I sort of caught up on my studying and so I made a kicking tee for the football team -- down in the shop, and then finished another project I'm doing down there. ..The way I use my study halls depends. If they're in the morning, I review for the classes I have following those. If I have reviewed and I know it, I finish other homework or read.

Parental Role and Differentiation

For purposes of this analysis, the parents' role inferred from the answers to direct questions at the end of the Typical Day Interview supplemented by what the student said during the interview itself. In terms of the parents' role in schoolwork, the scale went from parent-directed (1) to student-directed (5). The following two excerpts were from interviews where the rating was (1), parent directed:

> I think I'd get better grades if I got special help. I also think I'd better my grades if I didn't worry as much about tests... My mom always asks me why I don't have a lot of homework and I say because I did it in study hall and she doesn't believe me.. My dad says if I don't maintain a B- average I'll be taken ut of school so I'm trying my hardest to make A's and B's. I doubt if I will.

> My mother's always nagging me about my school work and chores around the house. We just don't get along. It's very hard to communicate with her.

The following excerpt is from an interview with a student whose schoolwork was rated as student directed (5):

> We just finished a map of the school. At first I didn't understand it at all. When I put in the main building, it sort of came clear to me and I sat on top of the world. We finally finished it. It was a real experience ....After school when mom picks me up we usually run a few errands. When I get home I do my chores, burning

> the trash, and I feed the rabbit. Usually my next door neighbor who is two comes over and wants me to play with him. I do for a while and then help get dinner ready.

Schoolwork is something that the student presents as very involving for herself. While she speaks of her mother and other activities, they are not closely related to schoolwork.

A rating was also made of the parents' role in the student's daily life apart from his school related activities. The scale was from minimal role (1) to major role (5). Minimal role (1) for parents was inferred from statements like the following:

> From 6-6:30 I eat dinner. Then I go upstairs for homework. About 9, I go to bed.

This rating of minimal role was inferred largely from the lack of information about parents. The great majority of students not only had comments to make about their parents, but did so in detail, particularly concerning the family interaction in the evening.

In contrast, the following excerpt is from a student whose parents were rated as playing a major role (5) in his life:

> I like breakfast because the whole family's together. Sometimes at dinner we're not all together. Sometimes dad has to stay late at work. When we're at breakfast we can all talk about things that are common to us and talk about problems or something we're afraid of during the day. It's just being together I like so much.

Role of Gym

The role of gym in a student's day was evaluated on one dimension: unimportant (1) to important (5). The following excerpt is from a student rated as feeling gym was unimportant (1):

> I have Physical Education with Miss C. I don't feel the exercise is worth the trouble of changing clothes back and forth. I guess I just don't care for sports much either.

The student in the following excerpt was rated as feeling gym was important (5):

> This period is pretty important because it gives me a chance to unwind from any tensions that have built up in the time before. Here I can really exercise for a good long time. This period really helps a lot.

Relations with Peers

As with the degree of independent initiative, it was felt that relations with peers might reflect the ability to differentiate. The first rating category reflected whether the student had superficial relations with his peers or deep relationships. The continuum was again 1 to 5, superficial to deep. Excerpts such as the following were generally associated with students rated as having superficial (1) peer relationships:

> I don't like the carppol much because nobody talks or anything like that... Then we have lunch. Well, everybody is sort of talking and I listen to what others talk about. I don't say much myself.

The student who stated the following was rated as having deep (5) peer relationships:

> Once I get started talking nothing can stop me. If you don't have friends to talk to who can you tell your problems to...I've known Cindy since third grade and we've been good friends. I have other friends too, but Cindy and I sort of have the most in common. Cindy thinks the way I think and we're just really good friends. She and I do a lot together. We skate and spend a lot of time at each others houses. I really enjoy her and she enjoys me. I feel we have a lot in common.

The second rating category regarding peers tapped the inner-directed and other-directed dimensions following Riesman (5). The continuum was from inner-directed (1) to other-directed (5). Inner-direction (1) was attributed to the student who said the following:

> Generally I prefer working or reading or thinking alone. I can concentrate better. I have some friends, but I

> guess we aren't very close. They don't seem very important right now.

Other-direction (5) was felt to be associated with the following student:

> I like to know a lot of people. I like to be in on everything. It's fun. It's important to get to know people especially at this age and make contacts with lots of people. It's a lot more important than being alone because you can always make time to be by yourself... I think the most important thing in the world is people and you have to learn to have contact with them and how to behave. I like working together with people.

IV. Intellectual Ability and Achievement

The Junior Scholastic Aptitude Test (JSAT) and the Otis Quick Scoring Intelligence Test were used as the measures of ability. The ranges of abilities on these tests were small: for the JSAT, the mean was 473 with a standard deviation of 71, for the Otis, the mean was 126 with a standard deviation of 6.

Achievement was based on grades. The grading system for the school is A, B+, B, C, and D. For the purposes of the correlational analysis, an A was given a weight of 5, with B+ equal to 4, B equal to 3, C equal to 2, and D equal to 1.

V. Results

The presentation of the results will be divided into five parts: the interscorer reliability in making ratings from the Typical Day Interview; a comparison of male and female students on the variables related to the Typical Day; a comparison of Grades 7, 9, 11 on the variables related to Typical Day; and a comparison of Level A and Level C students on variables related to Typical Day.

A. Reliability

The ratings used in the results section were made by the interviewers who conducted the Typical Day discussions. It was obviously necessary to do a study of rater reliability in the assignment to Typical Day categories. Three raters (all graduate students) were asked to listen to tape recordings of five Typical Day interviews and make ratings according to the evaluation instructions. Table 1 presents the results of a correlational analysis of their evaluations.

Table 1

Interscorer reliability of ratings of five Typical Day Interviews by three raters

	Rater A (Goldston)	Rater B	Rater C
Rater A (Goldston)	1.00	.88	.78
Rater B		1.00	.72
Rater C			1.00

Rater A was the interviewer. Her relationship to Raters B and C was closer than B and C were to each other. For the purposes of our check on reliability in rating, however, the interscorer reliability seems sufficiently high.

B. Correlational Analysis

There are sixteen variables in the method of evaluating Typical Day Interviews. Table 2 consists of the intercorrelations of the sixteen variables.

(Insert Table 2 about here)

With a sample of thirty, a correlation larger than .36 is statistically significant beyond the .05 level. A correlation larger than .43 is significant beyond the .01 level.

C. Comparison of Boys and Girls

A comparison was made of the responses of boys and girls to the Typical Day Interview in order to ascertain whether sex was a factor either in differentiation or in the other variables under study. Table 3 presents this comparison of male and female students on the variables related to the Typical Day.

(Insert Table 3 about here)

D. Comparison of Grades 7, 9, and 11

The purpose in comparing the responses of students in Grades 7, 9, and 11 was to ascertain whether differentiation or the other variables under study in the Typical Day format were related to adolescent development. If significant change occured between Grades 7 and 11, then growth could be considered an important factor. Table 4 presents the results of this comparison.

(Insert Table 4 about here)

E. Comparison of Track Level A and Track Level C

The school in which this study was conducted had a student body with exceptional ability. The JSAT verbal score averages 471. The Otis Quick Scoring mean score is 126 with a standard deviation of six. In other words, the level of ability within the school is sufficiently high as to make the usual tests of intellectual ability not too meaningful for internal guidance purposes. Differences in performance do exist, however. The purpose of comparing students in Tracks A and C was to ascertain whether differentiation and the other variables associated with the Typical Day format were associated with the assignment to Track level and differences in performance. Table 5 presents this comparison.

(Insert Table 5 about here)

VI Discussion

The intercorrelation of the variables in the Typical Day Interview provides an opportunity to evaluate the relationship of the capacity of a student for differentiation to a number of factors such as grades in school, activity level, intellectual ability, independent initiative, peer relations, inner-directedness, the role of gym, academic achievement, and the role of parents in school work and daily life. In addition, the intercorrelation analysis facilitates an evaluation of how these variables interrelate.

Differentiation: Differentiation was inferred from three major variables: perception of school, perception of teachers, and perception of classes. In each case, the continuum was from undifferentiated to differentiated. As might be expected, there is a close relationship between these differentiation variables. Perception of school correlated .70 with perception of teachers and .75 with perception of classes. Perception of teachers correlated .67 with perception of classes.

There was a relatively high correlation of all three differentiation variables with independent initiative. Independent initiative correlated .62 with perception o school, .67 with perception of teachers, and .78 with perception of classes.

This relationship between independent initiative and differentiation is particularly interesting when considered along with the variables pertaining to parental role. The role of parents in a student's daily life was unrelated to differentiation. There were, however, moderately high correlations between the differentiation variables and the specific role of parents in relation to schoolwork.

(.50 with perception of school, .60 with perception of teachers, and .59 with perception of classes.) The less the relation of parents to schoolwork, the more the student was able to perceive the school in differentiated terms.

Differentiation was unrelated to activity level, peer relations, the role of gym, or the use of free time in a rigid or flexible manner. It did correlate highly with organizational ability (perception of school .69, perception of teachers .55, perception of classes .77); and moderately with grades (perception of school .57, perception of teachers .54, and perception of classes .68), Otis IQ (perception of school .57, perception of teachers .54, and perception of classes .68), and JSAT (perception of school .47, perception of teachers .54, and perception of classes .55).

Use of Free Time: Use of free time was evaluated on two dimensions: organizational ability and rigidity-flexibility. As was mentioned above, organizational ability correlated highly with differentiation. It is also highly related to independent initiative (.69) and to school work being more student directed than parent directed (.61).

The highest correlation of organizational ability was with grades (.73). Moderate correlations existed between organizational ability and the measures of intellectual ability (.59 with the OTIS IQ, .49 with the JSAT). Organizational ability had several moderate negative correlates: relations with peers in terms of superficial or deep (-.32), relations with peers in terms of inner direction-other direction (-.48) and importance of gym (-.25). The lower a student was on organizational ability, the more other directed he

tended to be, the greater importance he assigned to gym, and the deeper his interpersonal relationships tended to be. With the exception of a moderate (.47) correlation with having numerous activities, flexibility-rigidity in the use of free time was not related to the other dimensions in the Typical Day format.

Independent Initiative: Independent initiative, as discussed before, was found to be highly correlated with differentiation. As an inspection of Table 2 indicates, independent initiative is also highly related to student direction of schoolwork (.84), grades (.73), and to a lesser extent, intellectual-ability (Otis .32 - JSAT .60). Independent initiative seems particularly related to academic success in a highly selective secondary school.

Activity Level: Activity level was rated on two dimensions: passive orientation versus active orientation for activities and few activities versus many activities. There was a correlation of .92 between these two dimensions; those students with many activities also chose very active pursuits. Outside of a moderate correlation of .40 with other-directedness, activity level was not significantly related to the other dimensions of the Typical Day Format.

Relations with Peers: Relations with peers were evaluated on two dimensions: superficial versus deep, and inner-directed versus other-directed. Both these dimensions were unrelated to differentiation. Apart from being related to each other (.78), these dimensions were not positively related in any important degree to other variables in the study.

An interesting negative relationship existed, however, between relations with peers, academic achievement (grades) and intellectual

ability. Those students who tended toward other-directedness were associated negatively with both grades (-.34) and intellectual ability (Otis -.14, JSAT -.39). Students who were inner-directed did considerably better in school as measured by grades than those who were other-directed. A similar relationship was found between the role of gym and academic achievement: those students for whom the role of gym was important did less well in school than those for whom gym was less important.

Role of Parents: The role of parents was evaluated on two dimensions: the importance of parents in the student's daily life and the importance of parents in specific relationship to schoolwork. These two dimensions were completely unrelated, correlating -.01 with each other.

The role of parents in daily life was likewise unrelated to academic achievement grades or to intellectual ability (JSAT and Otis). There was, however, a very significant correlation between the importance of parents in schoolwork and grades. The correlation of this dimension with grades was .71. The more student directed schoolwork was, the higher his grades. Conversely, there is a negative relationship between the importance a parent assumes in his child's schoolwork and how well the child does in school. The more the parent directs schoolwork, the less well the child does.

There was an intriguing relationship between this same dimension and intellectual ability. As Table 2 indicates, the role of parents in specific relation to schoolwork correlates .37 with Otis IQ and .48 with JSAT. In other words, there is a moderate relationship between intellectual ability and the school work being student directed. A probable interpretation is the inverse: students with

low ability probably do not do well in school initially so the parents step in and try to encourage them to do better. When the quality of schoolwork does not improve, the parents are undoubtedly prompted by their interest in their children to take an even more active role in the child's school work.

Grades and Intellectual Ability: Grades were found to be highly correlated with organizational ability, independent initiative, and school work being student directed. In addition, there were high correlations between grades and the intellectual ability tests. The Otis IQ correlated .68 with grades, the JSAT .70. Moderate correlations were found with the measures of differentiation. The major negative correlations with grades were found with being other-directed in peer relationships and having school work be parent-directed.

Sex Differences and Differentiation: Table 3 presented comparisons of the responses of boys and girls to the Typical Day Interview. The purpose of this analysis was to ascertain whether sex was a factor either in differentiation or in the other variables under study. As an inspection of Table 3 indicates, differentiation was not related to sex difference. Women were, however, significantly higher (at the .05 level) on having depper peer relationships and on being more other-directed.

Comparison of Grades 7, 9, and 11: Table 4 presented comparisons of the responses of 7th, 9th, and 11th graders to the Typical Day Interview. The purpose of this analysis was to ascertain whether the variables under study in the Typical Day format were related to increased age and maturity.

As inspection of Table 4 indicates, differentiation was not related significantly to increased age and maturity. Significant

differences were found, however, between two dimensions of the 7th-9th grade comparison, two dimensions of 9th-11th grade comparison, and five dimensions of 7th-11th grade comparison.

Between the 7th and 9th grade, differences were found on two dimensions: flexible versus rigid use of free time, and role of parents in daily life. As might be expected of new students in a secondary school, the 7th graders were less flexible in their use of free time than were 9th graders. The parents of 7th graders also were rated as having a more major role in the daily life of their children than were 9th grade parents. This could be the reflection of the greater mobility and independence with increased age of the 9th graders.

Between 9th and 11th grade differences were found on two dimensions: independent initiative, and activity level in terms of passive=active orientation. 9th graders showed more independence and engaged in activities with a more active orientation. While this can be explained in terms of growth, school policy also gives increased opportunity to the older students.

Between 7th and 11th grade differences were found on five dimensions: independent initiative; activity level, both in terms of type and quantity; and relations wit. peers, both in terms of superficial versus deep and inner versus other directed. By the time students were in the 11th grade they were found to be more independent, more active in both type and quantity of activities, having deeper peer relationships, and being more other-directed. Again, differentiation was not found to be associated with increased age.

Comparison of Track Level: Table 5 presented the results of a comparison of the responses of Track Level A and Track Level C

students to the Typical Day Interview. This comparison was made to ascertain whether differentiation and the Typical Day format were associated with the assignment to track level. This is particularly important since the level of intellectual ability within the school is sufficiently high as to make the usual tests of ability not too meaningful for internal guidance purposes or assignment to track levels.

As inspection of Table 5 indicates, significant differences (at the .01 level) were found, with Level A higher than Level C, on two of the three differentiation measures, on organizational ability, on independent initiative, on inner direction, and on school work being student directed instead of parent directed.

A common denominator of these significant results in track level comparison is their non-intellective quality. Usual school decisions regarding track level are based on a combination of past academic performance and intellective criteria such as intelligence test scores. Given the restricted range on these dimensions resulting from the rigorous selection standards, their usefulness for internal school guidance and placement purposes is curtailed. It would appear on the basis of these results that non-intellective measures such as those provided by the Typical Day Interview could be of utility in identifying students already selected on intellective measures for assignment to appropriate track levels.

VII Summary and Implications for Future Research

The focus of this study was on the ability of a student to differentiate different aspects of his home and school environment, and on the correlates of that ability. The Typical Day Interview in which a student describes in detail his activities and perceptions on

a given day, was the major instrument for study. The intensive nature of the Typical Day Interview as a method of study made a small sample a necessity. Thirty students were selected from the 7th, 9th, and 11th grades of a very selective independent secondary school.

The following are salient findings of this study:

1. Differentiation was found to correlate highly with organizational ability, independent initiative, and moderately with grades and intellectual ability. Differentiation was unrelated to activity level, peer relations, the role of gym, the use of free time in a flexible or rigid manner, increased age and maturity, or sex differences.

2. Independent initiative correlated highly with the measures of differentiation, student direction of schoolwork, and grades. Independent initiative seems particularly related to academic success in a highly selective secondary school.

3. Students who were inner-directed did considerably better in school as measured by grades than those who were other-directed.

4. The role of parents in a student's daily life was unrelated to either academic achievement or intellectual ability. There is a strong negative relationship, however, between the importance a parent assumes in his child's schoolwork and how well the child does in school. The more the parent directs schoolwork, the less well the child does.

5. Students in the 11th grade, when compared to 7th

graders, were found: to be more independent, to be more active in both type and quantity of activities, to be having deeper peer relationships, and to be more other-directed.

6. Non-intellective measures such as those provided by the Typical Day Interview seem to have utility in identifying students already selected on intellective measures for assignment to appropriate trait levels.

This was a study of a quite restricted school population in terms of both ability of student and type of school. Caution is required, therefore, in generalizing to other school populations. It is important that the study be expanded to include comparisons of urban and suburban schools as well as students of wide ability ranges.

Another avenue for future research involves the development of more efficient methods of assessing differentiation, independent initiative, the role of parents in school work, inner-direction versus other-direction, and their interrelationship within an educational setting. There are, at present, instruments available to assess some of these dimensions, but they have neither been related specifically to differentiation in education or interrelated. If the potential of differentiation as a dimension of the adolescent in the secondary school is to be realized from this study utilizing the Typical Day Interview, instrumentation will provide the key.

TABLE 2

Correlations of Variables in the Typical Day Interview (N=30)

	Per of school	Per of Tchr.	Per of classes	Free Time Dis-org	Free Time Rig-fle	Indep. Init.	Activ. pass-ac	Activ. few-man	Rels. peers super deep	Rels. peers inner-other	Gym	Role Parent daily life	Role parent school	Grades	Otis IQ	JSAT
1. Perception of school	1	70	75	69	09	62	24	24	-14	-18	-34	08	50	57	43	47
2. Perception of Tchr		1	67	55	03	67	38	33	00	06	30	12	60	54	28	54
3. Perception of Classes			1	77	-01	78	12	11	-30	-29	-17	-19	59	68	54	55
4. Free Time Disorgan.-Organ				1	-03	69	06	07	-32	-48	-25	-05	61	73	59	49
5. Free Time Rigid-Flex.					1	20	42	47	24	16	16	-05	31	14	-02	-01
6. Independent Init.						1	36	35	-05	-10	02	-03	84	73	52	60
7. Activity level Passive-active							1	92	35	40	30	26	32	-06	14	15
8. Activities few=many								1	28	30	31	17	29	-05	04	09
9. Relations with peers Super-deep									1	78	23	18	06	-13	-06	-31
10. Relations with peers Inner-dir. - Other dir.										1	30	26	-14	-34	-14	-39
11. Role of gym											1	11	-21	-34	-04	-40
12. Role of parents in Daily life												1	-01	-10	06	05
13. Role of parents in School work													1	71	37	48
14. Grades (low-high)														1	68	70
15. Otis IQ (low-high)															1	61
16. JSAT (low-high)																1

TABLE 3

Comparison of Male (N=15) and Female (N=15)

students on the variables

related to the Typical Day

	Variable	Male Mean	Female Mean	t-value
1	Perception of school (undiff-diff)	3	3.06	1.05
2	Perception of teachers (undiff-diff)	3.00	3.44	1.02
3	Perception of classes (undiff-diff)	3.75	3.50	.69
4	Use of free time (disorg-org)	3.67	3.17	1.27
5	Use of free time (rigid-flex)	4.08	3.67	1.19
6	Independent Unit (dep-indep)	3.50	3.33	.44
7	Activity level (pass-act)	3.00	3.17	.46
8	Activities (few-numerous)	3.00	2.94	.15
9	Relations with peers (sup-deep)	2.67	3.50	2.05*
10	Relations with peers (inner-other)	2.58	3.50	2.13*
11	Role of gym (unimpt-impt)	3.75	3.39	.90
12	Role of parents in daily life (min-major)	3.17	3.72	1.64
13	Role of parents in school work (Par.dir stu.dir)	3.25	3.28	.07

*Significant beyond the .05 level.

TABLE 4

Comparison of Grades 7 (N=10), 9 (N-10), 11 (N=10) on the variables related to the Typical Day Interview

		7th Mean	9th Mean	11th Mean	t-value 7-9	t-value 9-11	t-value 7-11
1	Perception of school (undiff-diff)	3.00	3.20	3.50	.38	.61	.95
2	Perception of teachers (undif-dif)	3.30	2.80	3.70	.84	1.83	.88
3	Perception of classes (undif-dif)	3.30	3.50	4.00	.50	1.17	1.56
4	Use of free time (disorg-org)	3.40	3.20	3.50	.51	.56	.19
5	Use of free time (rigid-flex)	3.40	4.20	3.90	2.19*	.75	1.08
6	Indep. Unit (dep.-indep.)	2.90	3.20	4.10	.80	2.24*	2.86*
7	Activity level (pass.-act.)	2.50	2.90	3.90	1.12	2.55*	4.88*
8	Activity level (few-many)	2.40	2.90	3.60	1.41	1.59	3.46**
9	Relations with peers (super-deep)	2.60	3.20	3.70	1.16	1.19	2.11*
10	Relations with peers (inner-other)	2.60	3.00	3.80	.77	1.63	2.23*
11	Role of gym (unimpt-impt)	3.40	3.50	3.70	.23	.35	.63
12	Role of parents in daily life (min-major)	3.90	3.10	3.50	2.72*	.86	.91
13	Role of parents in school work (par.dir-stu. dir)	2.80	3.20	3.80	.91	1.46	2.06

* Significant beyond the .05 level
** Significant beyond the .01 level

TABLE 5

Comparison of Track Level A (N=15) and Track Level C (N=15)

students on the variables related

to the Typical Day Interview

	Variable	Level A Mean	Level C Mean	t value
1	Perception of school (undiff-diff)	3.87	2.60	3.65**
2	Perception of teachers(undif-dif)	3.60	2.93	1.60
3	Perception of classes(undif-dif)	4.20	3.00	4.29**
4	Use of free time(disorg-org)	4.13	2.60	5.67**
5	Use of free time(rigid-flex)	3.93	3.73	.57
6	Independent Unit(dep-indep)	4.07	2.73	4.85**
7	Activity level(pass-act)	3.06	3.13	.18
8	Activities(few-numerous)	3.00	2.93	.19
9	Relations with peers(sup-deep)	2.87	3.47	1.46
10	Relations with peers(inner-other)	2.47	3.80	3.52**
11	Role of gym(unimpt-impt)	3.20	3.87	1.76
12	Role of parents in daily life(min-major)	3.33	3.67	.97
13	Role of parents in school work(par.dir-stu.dir)	3.93	2.60	4.49**

* Significant beyond the .0. level
** Significant beyond the .01 level